

EXHIBIT 3

ATTACHMENT A – SPECIFICATIONS FOR TRADE AND ORDER DATA

1. With respect to all Document Requests regarding trading and order activity, all trading data must be produced so as to fully reconstruct the activities and information known by the defendant. This includes but is not limited to the following data fields:

- a. All information available on any parent order(s)
- b. the order identifier(s) and the identifier(s) for any parent order(s);
- c. trade/event type (*e.g.*, regular trade, odd lot, etc.);
- d. the date and time of the order event, trade or transaction, to at least millisecond precision, set to a standardized time zone across all transactions;
- e. the side of the trade (*e.g.*, buy, sell, etc.);
- f. the price of the order;
- g. Any DTCC and OATS identifying information used with data sent to FINRA and DTCC reporting;
- h. the order type (*e.g.*, limit, market, iceberg, pegged, etc.);
- i. the quantity of the order;
- j. currency (if applicable);
- k. ticker symbol;
- l. any information about how different firm, desk, trader, or algorithmic identifiers may be linked to each other;
- m. for each execution, the price and quantity traded;
- n. the venue on which the trade was executed, and whether or not the venue was lit or a dark pool;
- o. the identifier information of the counterparty of the order, trade or transaction;

- p. whether the order was executed against a market maker or another trader or internalized by broker;
- q. the capacity in which the order was sent (agent vs. principal);
- r. any and all proprietary fields;
- s. any and all order handling instructions;
- t. all OTC-specific fields (*e.g.*, OTC market tier)
- u. any flags or order type settings that were set on the order (*e.g.*, visibility, TIF and execution conditions);
- v. any and all identifier information, including but not limited to the firm, desk, portfolio manager, trader, algorithm or other internal identifiers, indicating who was responsible for the order; and
- w. Whether a trade was associated with a short position, at each identifier level (firm, desk, algorithm, etc.).

2. With respect to all Document Requests regarding trading and order activity, all order message data must be produced so as to fully reconstruct the activities and information known by the defendant. This includes but is not limited to the following data fields:

- a. All information available on any parent order(s)
- b. Order identifier linking together all activities relating to an order (*e.g.*, placement, cancellation, execution, cancel/replace) necessary to track the life of an initial order (the identifier must be unique within a given trading day);
- c. message type (*e.g.*, new, cancel/replace, execution);
- d. side (*e.g.*, buy, sell, etc.);

- e. date and time, to at least millisecond precision, corresponding to a standardized time zone;
- f. any information about how different firm, desk, trader, or algorithmic identifiers may be linked to each other;
- g. Trader identifier used to consistently identify individual traders/algorithms/strategies within a given institution;
- h. Any DTCC and OATS identifying information used with data sent to FINRA and DTCC reporting;
- i. order type (*e.g.*, limit, market, iceberg);
- j. price (limit price, if applicable);
- k. initial order quantity;
- l. remaining order quantity for partial executions and cancellations (if applicable), and explanations of the effect on this field from cancel/replace orders;
- m. order status (*e.g.*, new, cancelled, filled, partially filled, replaced, etc.);
- n. execution flag (*i.e.*, indicating whether the order was part of an execution);
- o. currency (if applicable);
- p. any and all additional order handling instructions;
- q. information related to a specific order type (*e.g.*, pegged order reference, peg offset, minimum quantity, etc.);
- r. ticker symbol;
- s. any and all identifier information, including but not limited to the firm, desk, portfolio manager, trader, algorithm or other internal identifiers, indicating who was responsible for the order;

- t. time in force (*e.g.*, immediate or cancel, fill or kill, etc.);
- u. venue to which the order was sent, and whether or not the venue was lit or a dark pool;
- v. max floor (*i.e.*, maximum quantity of shares to be displayed at a given time);
- w. any and all information about any routing system or algorithm used (*e.g.*, SMART, VWAP, etc.);
- x. any and all proprietary fields;
- y. any and all special order handling instructions;
- z. all OTC-specific fields (*e.g.*, OTC market tier); and
- aa. Whether an order would execute as a short position, at each identifier level (firm, desk, algorithm, etc.).

3. Data Dictionaries must be produced as an accompaniment to each and every data production. These Data Dictionaries must contain information including, but not limited to:

- a. Definitions of each field and all possible values, along with any other relevant information relating to data production;
- b. Information on how to connect messages together for a complete view of an order's lifecycle;
- c. Information on any standard or proprietary order book message protocols utilized in creation of the dataset (*e.g.*, FIX 4.4);
- d. Information on same-timestamp message sequencing (if multiple messages occur at the same timestamp, in which sequence should they be treated); and

- e. Detailed explanations of how each field operates with respect to the trade and order book behavior (*e.g.* how a field impacts whether an order is displayed or hidden, whether an order is immediately sent for execution, etc.).